

REMARKS

Drawing Objections

The Examiner has objected under 37 C.F.R. § 1.83(a) because the Examiner asserts that the “passageway,” “upper hole,” “lower hole,” and “spacer” are not shown in the drawings. Applicants respectfully submit that each of these features are already shown in the drawings. The passageway is shown as radial holes 30 in Figures 5 and 6 and radial holes 90 in Figure 9. The upper hole is shown as hole 88 in Figure 9. The lower hole is shown as hole 86 in Figure 9. The spacer is shown as spacer 102 in Figure 10. The drawings illustrate exemplary embodiments of the claimed invention. The claims, however, are not limited to the specific structures shown.

35 U.S.C. § 112 Claim Rejections

The Examiner has rejected claims 25-27, 38 and 41 under 35 U.S.C. § 112 ¶ 1 because the Examiner asserts that the claimed “passageway” is not enabled by the specification. The Examiner has also rejected claims 27 and 41 under 35 U.S.C. § 112 ¶ 1 because the Examiner asserts that the claimed “upper hole” and “lower hole” are not enabled by the specification. The Examiner has also rejected claims 28 and 43 under 35 U.S.C. § 112 ¶ 1 because the Examiner asserts that the claimed “spacer” is not enabled by the specification. The Examiner has also rejected claims 32-33, 36-37, 39, 42 and 44 under 35 U.S.C. § 112 ¶ 1 because the Examiner asserts that the claimed “plate” is not enabled by the specification.

Applicants, however, disagree with the Examiner. Each of these claimed limitations is fully enabled by the specification, and one of ordinary skill in the art would readily recognize the enabling embodiments in the specification. The passageway is described as radial holes 30 at page 8, line 26 to page 9, line 1 and radial holes 90 at page 12, lines 22-26. The upper hole is described as hole 88 at page 12, line 32 to page 13, line 1. The lower hole is described as hole 86 at page 12, lines 21-22. The spacer is described as spacer 102 at page 13, lines 16-19. The plate in claims 32-33, 39 and 42 is described as top support plate 52 at page 10, lines 23-25 and page 11, lines 23-29 and top support plate 92 at page 13, lines 5-10. The plate in claims 36-37

and 44 is described as susceptor lid 110 at page 13, line 30 to page 14, line 2. With this understanding, the Examiner should now withdraw the § 112 rejections.

35 U.S.C. § 102 Claim Rejections

The Examiner has rejected claims 24-25, 28-39 and 43-44 under 35 U.S.C. § 102(b) as being anticipated by Christen et al. (U.S. Patent No. 5,904,957). Applicants have carefully considered the Examiner's comments. However, Applicants respectfully submit that the claimed structure is clearly different from the structure disclosed in Christen et al.

The Examiner appears to recognize that independent claim 24 is directed to different subject matter than Christen et al. However, the Examiner argues that Applicants' claim limitations should not be given weight in the patentability analysis. In particular, the Examiner states:

Applicant's claim requirement of "first portion" and "second portion" of the process gas are claim requirements of intended use of the pending apparatus claims. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter, 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

The Examiner's analysis of this law is incorrect for several reasons. First, the purpose for the Examiner's citation to MPEP 2106 is unclear, since the title of this section is "Patentable Subject Matter — Computer-Related Inventions". It appears that this section is completely unrelated to the claimed invention, which is not a computer-related invention. The Examiner's citation to Walter, 618 F.2d at 769 is also misplaced. Walter, 618 F.2d 758 is cited in the MPEP only at sections 2183 and 2184. Both of those sections deal with interpreting means-plus-function claim elements. However, Applicants' claims are clearly not limited by means-plus-function elements. In addition, it does not appear that the MPEP cites to page 769 of Walter (which the Examiner relies upon) anywhere in the MPEP. Page 769 of Walter deals with mathematical algorithms

and Jepson claims. Neither of these issues relates to Applicants' claims. MPEP 2111.02 also does not relate to Applicants' claims. The title of MPEP 2111.02 is "Effect of Preamble". This section does not apply because the claim elements that the Examiner discounts are in the body of the claim and are clearly not in the preamble of the claim.

Likewise, the cases of *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458 (CCPA 1963) do not apply to Applicants' claims. *In re Casey* cited to the case of *In re Otto* and characterized *In re Otto* as standing for the proposition that "[t]he manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself." In the case of *In re Casey*, the court explained that the only difference between the claimed machine and the prior art was the intended use of the claimed machine. The court accepted the board's determination in which "[t]he board found that appellant's structure, even in view of the claim language, differed in no way from the disclosure of Kienzle. The board considered that the structure provided by the reference possessed the capabilities requisite to meet the terms of the claims." *Id.* at 579. *In re Casey* and *In re Otto* do not apply to Applicant's claims because in those cases there was no patentable difference between the claimed structure and the prior art. In those cases, the only difference between the claim and the prior art was the "manner or method in which such machine is to be utilized."

These cases are not apposite to Applicants' claimed invention because Applicants have claimed a structure that is patentably different from the prior art. In particular, Applicants' claims are limited, *inter alia*, to a furnace for densifying a stack of porous structures with an inlet opening positioned adjacent a center opening region of the stack. The size of the inlet opening is required to control gas flow to the center opening region so that a predetermined first portion passes through the inlet opening to the center opening region and the remaining second portion passes to the outer region.

The structure disclosed in Christen et al. is completely different from Applicants' claimed structure. The invention of Christen et al. is shown in Figure 2. (Col. 5, lines 45-47). Christen et al. explains the structure that is used to diffuse gas through the furnace as follows:

The preheated gas coming from the diffuser plate 22 is channelled towards the volume constituted by the interior passages 31 of the stacks 30. To this end, the blocks 25 between the diffuser plate 22 and the bottom support tray 15a are constituted by rings of diameter equal to or slightly greater than the diameter of the holes 15 and they are in alignment therewith so that the gas is directed exclusively into the passages 31. The diffuser plate 22 is provided with perforations 22a solely in register with the passages 31. [Col. 6, lines 49-57.]

Thus, in Christen et al., the gas is directed only towards the center opening region of the stack of preforms. The disadvantages of this structure are explained in Applicants' specification at page 2, line 28 to page 3, line 12. Thus, contrary to the Examiner's argument, Christen et al. is not capable of meeting the limitations of Applicants' claims. As explained above, Applicants' claimed structure is patentably different from Christen et al. because Applicants' claims require an inlet opening that is sized to control gas flow, with gas passing both to the center opening region and the outer region.

Accordingly, because the prior art of record does not disclose all of the limitations of claims 24-45, the Examiner should withdraw the § 102 rejections.

35 U.S.C. § 103 Claim Rejections

The Examiner has rejected claims 37, 41-42 and 45 as being unpatentable under 35 U.S.C. § 103(a) by Christen et al. The Examiner has also rejected claim 35 as being unpatentable under 35 U.S.C. § 103(a) by Christen et al. in view of Porter (U.S. Patent No. 5,626,680). The Examiner has also rejected claim 40 as being unpatentable under 35 U.S.C. § 103(a) by Christen et al. in view of Jingbao (U.S. Patent No. 6,403,491) and Porter. The Examiner has also rejected claim 26 as being unpatentable under 35 U.S.C. § 103(a) by Christen et al. in view of Laxman (U.S. Patent No. 6,450,117) and Porter.

As an initial matter, Applicants do not see Jingbao (U.S. Patent No. 6,403,491) cited in the Examiner's PTO-892 form. If the Examiner intends to rely upon this reference, Applicants would appreciate this reference being officially made of record.

Each of these claims depend from claim 24. As explained above, claim 24 is allowable because the prior art of record does not disclose all of the limitations of claim 24. Accordingly, all of the claims depending from claim 24 are also allowable because

these claims incorporate all of the limitations of claim 24. Any further arguments that could be made at this time in support of Applicants' dependent claims would be superfluous and unnecessary. Therefore, the Examiner should withdraw the § 103 rejections.

Conclusion

As explained above, none of the prior art of record discloses the limitations of Applicants' claims. Thus, Applicants' claims are allowable. If the Examiner has any questions, the Examiner may call Applicants' attorney, Richard E. Stanley, Jr., at 312-321-4279. Accordingly, Applicants request reconsideration and allowance of the application.

Respectfully submitted,



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